<u>Listing of the Claims</u>

1.   (currently amended)   A method for determining adhesive resin distribution on wood

substrate to be formed into a wood-based composite, where an adhesive resin has been applied

onto the wood substrate, said method comprising the steps of:

obtaining a sample of wood substrate having applied adhesive resin and placing the

sample wood substrate on a scanning bed;

scanning the wood substrate to provide image data;

using image analysis software with resin analysis macros installed on a computer wherein

the image data of the wood substrate is filtered to provide a high contrast image that shows ~~each~~

adhesive resin ~~spot~~ spots differentiated from a bare wood substrate on which the adhesive resin

~~spot is~~ spots are situated; and

measuring and analyzing the high contrast image, using the image analysis software with

resin analysis macros, to provide an output showing at least a percent coverage of the wood

substrate by the adhesive resin.

2.   (previously presented)   The method of claim 1 further including, after obtaining the

sample of wood substrate having applied adhesive resin, heating the wood substrate until spots of

adhesive resin are substantially differentiable from a portion of the wood substrate that is not

covered by adhesive resin.

3.   (previously presented) The method of claim 2, wherein the sample of wood substrate is heated at 250 degrees Fahrenheit.

4.   (previously presented) The method of claim 3, wherein the sample of wood substrate is heated for a time between 15 minutes and 45 minutes.

5.   (previously presented) The method of claim 1, wherein the wood substrate comprises wood flakes, and wherein measuring and analyzing the high contrast image includes:

        determining an area of the adhesive resin spots,

        determining an area of the wood flake on which the adhesive resin spots are situated,

        determining a percent coverage of the area of the wood flake by the adhesive resin spots, and

        determining an average percent coverage area of a preselected number of wood flakes by the adhesive resin spots.

6.   (currently amended) A system for determining adhesive resin distribution on adhesive resin blended wood substrate for wood-based composite production, comprising:

        a flatbed scanner arranged to receive a sample of the adhesive resin blended wood substrate from an output of a blender, for scanning the adhesive resin blended wood substrate to provide image data to image analysis software with resin analysis macros; and

a computer having the image analysis software with resin analysis macros installed thereon, the computer being arranged to receive the image data from the flatbed scanner and configured for filtering the image data to provide a high contrast image that shows ~~each~~ adhesive resin ~~spot~~ spots differentiated from a bare wood substrate on which the adhesive resin ~~spot is~~ spots are situated, for measuring an area of ~~each~~ adhesive resin ~~spot~~ spots and the area of bare wood substrate on which the adhesive resin ~~spot is~~ spots are located and for analyzing the image data to provide an output showing at least a percent coverage of the wood substrate by the adhesive resin.

7.   (currently amended)   A method for determining adhesive resin bond quality on wood samples pulled from a wood-based veneer composite that has been vacuum/water-soaked for a predetermined amount of time, to provide a grade for the wood-based veneer composite, said method comprising the steps of:

heating the wood samples pulled from the wood-based composite for one of a predetermined time and until the wood samples are substantially dry;

placing said wood samples on a scanning bed;

scanning said wood samples to provide image data;

using image analysis software with resin analysis macros installed on a computer wherein the image data of ~~each~~ the wood ~~sample~~ samples is filtered to provide a high contrast image that shows ~~each~~ adhesive resin ~~spot~~ spots differentiated from bare wood on which the adhesive resin ~~spot is~~ spots are situated; and

measuring and analyzing the high contrast image, using the image analysis software with

resin analysis macros, to provide an output showing at least a percent resin coverage/wood

failure percentage of the wood sample.

8.   (previously presented) The method of claim 7, wherein the grade is also based on at least

one of a selected cure time, a press time, a press temperature and the adhesive resin used to

manufacture the wood-based veneer composite.

9.   (previously presented) The method of claim 7, wherein measuring and analyzing the

high contrast image includes: determining an area of the adhesive resin spots, determining an

area of each wood sample on which the adhesive resin spots are situated, determining a percent

coverage of the area of the wood sample by the adhesive resin spots, and determining an average

percent coverage area of a preselected number of wood samples by the adhesive resin spots.

10.   (new) The method of claim 1, where said using step comprises using image analysis

software with resin analysis macros installed on a computer wherein the image data of the wood

substrate is filtered to provide a high contrast image that shows each adhesive resin spot

differentiated from a bare wood substrate on which the adhesive resin spot is situated.

11.   (new) The system of claim 6, wherein said computer is configured for filtering the image

data to provide a high contrast image that shows each adhesive resin spot differentiated from a

bare wood substrate on which the adhesive resin spot is situated, for measuring an area of each

adhesive resin spot and the area of bare wood substrate on which the adhesive resin spot is

located and for analyzing the image data to provide an output showing at least a percent coverage

of the wood substrate by the adhesive resin.